

Vide Letter No.: HZLP/M&C/18-19/H-II



Date: 23.04.2019

To.

The Regional Officer (North Central Zone), Ministry of Environment, Forests & Climate Change, 25. Subhash Road, Dehradun-248001 Uttarakhand

Subject: Submission of Environment Clearance compliance report for Pantnagar Zinc-Lead melting & casting Plant (Zinc Metal- 4,65,000 TPA & Lead Metal- 1,50,000 TPA) of M/s Hindustan Zinc Limited, Plot No 2 & 3, Sector 14, IIE, SIDCUL, Pantnagar, Dist. U.S. Nagar for the period October-2018 to March-2019.

Ref: Letter No:- J-11011/327/2010/IA-II (I) dated 26.04.2011 from MoEF&CC.

Dear Sir.

With reference to the aforesaid subject, we have obtained Environment Clearance from Ministry of Environment, Forest and Climate Change, New Delhi for Pantnagar Zinc-Lead melting & casting Plant (Zinc Metal- 4, 65,000 TPA & Lead metal- 1, 50,000 TPA) on dated 26.04.2011.

Please find enclosed herewith the Compliance report of Environment Clearance for Pantnagar Zinc-Lead melting & casting Plant of M/s Hindustan Zinc Limited, Plot No 2 & 3, Sector 14, IIE, SIDCUL, Pantnagar, Dist. U.S. Nagar for the period of October-2018 to March-2019.

In case any additional information / documents / clarifications are required, the same may kindly be informed to us.

Thanking you. Yours faithfully,

(Lalan Deo)

Unit Head

Pantnagar Zinc-Lead melting & casting Plant Hindustan Zinc Limited

CC:

1. Regional Officer, CPCB, Lucknow

dusten Zinc Ltd. Pantnagar Plant

Pantnagar (U.K.)

- 2. MS office, UEPPCB, Dehradun
- 3. Regional Officer, UEPPCB, Kashipur
- 4. Office copy, HZL

Hindustan Zinc Limited

Pantnagar Metal Plant Plot No. 2 & 3, Sector 14, IIE, SIDCUL Pantnagar 2: 05944-257300, www.hzlindia.com

Regd. Office: Yashad Bhawan, Udaipur (Rajasthan) - 313 004 CIN: L27204RJ1966PLC001208

### Compliance Report of Environment Clearance (October-2018 to March-2019)

Name of the Project:

M/s Hindustan Zinc Limited

Pantnagar Zinc-Lead melting & casting Plant

Location of the Project:

Plot No.- 2 & 3, Sector 14, IIE, SIDCUL,

Pantnagar, District - Udham Singh Nagar,

Uttarakhand - 263153

Clearance Letter No: J-11011/327/2010/IA-II (I) Dt.26<sup>th</sup> April 2011 from MoEF&CC

Period of Compliance Report: October-2018 to March-2019

S.No	Condition	Compliance Status		
Α	Specific conditions.			
1	On-line ambient air quality monitoring and continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices viz. bag filters shall be provided to keep the emission levels below 50 mg/Nm³ by installing energy efficient technology.	continuous stack monitoring PM analyzers have been provided in all process stacks.  Continuous on-line Ambient air quality monitorin		
2	The National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16 <sup>th</sup> November, 2009 should be followed.	Noted and being Complied. Ambient air quality monitoring results are well within the NAAQs limits.		
3	Gaseous emission levels including secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30 <sup>th</sup> May, 2008 and regularly monitored. Guidelines / Code of Practice issued by the CPCB should be followed.	Being Complied. All Gaseous emission are being controlled through efficient bag filters connected to adequate stacks height provided for proper dispersion. In addition, monthly work zone monitoring is also being carried out.  Reports of stack emission and work zone are attached herewith as Annexure-1(b) & 1(c) respectively.		
4	The total water requirement shall not exceed 500 KLD. Permission to draw water from the Competent Authority shall be obtained. No effluent shall be discharged and 'zero' discharge should be adopted.	Being Complied. Water requirement of Zinc and Lead M&C process and silver process is limited to 325m3/day. For which CGWA is already giver consent (Letter no. CGWA/NOC/IND/ORIG/2018/4160 on dated 17 Oct 2018 and 01 Mar 2019). No effluent being generated from the process. However, Effluent treatment plant of 87 KLD already provided for		



		treating the combined trade effluents of Zinc & Lead melting casting and Silver refining plant so ETP is not in operation.  Combined STP of 30 KLD already installed to treat the waste water of Zinc and Lead Melting & Casting unit as well as silver plant. Treated water of the same is being used for
		horticulture/plantation. Zero discharge is being maintained.
5	Regular monitoring of influent and effluent surface, subsurface and ground water shall be ensured and treated wastewater shall meet the norms prescribed by the State Pollution Control Board or described under the E(P) Act whichever are more stringent. Leachate study for the effluent generated and analysis should also be regularly carried out and report submitted to the Ministry's Regional Office at Lucknow, SPCB and CPCB.	Being Complied. No effluent being generated from the process. Ground water being used for plant process and regular bore well monitoring being ensured. Zero Discharge is being maintained and no effluent discharged to surface water body.  Provision for online monitoring of STP outlet for BOD, COD, pH, TSS & Flow has been made.  Copy of ground water monitoring is attached herewith as Annexure 1(d).
6	Efforts shall be made to make use of rain water harvested. If needed, capacity of the reservoir shall be enhanced to meet the maximum water requirement. Only balance water requirement should be met from other sources	Complied. Three rain water storage ponds of capacity 2542, 1500 and 841 cum already constructed inside the plant area for maximum storage & reuse of the rainwater in the process. In FY 2018-19, we have reused around 6043 cu.m rainwater in the process for conserving the fresh water. Photograph of the same is attached herewith as Annexure-3.
7	Risk and Disaster Management Plan along with the mitigation measures should be prepared and a copy submitted to the Ministry's Regional Office at Lucknow, SPCB and CPCB within 3 months of issue of environment clearance letter.	Complied. Risk and Disaster Management Plan has been submitted to Ministry's Regional Office at Lucknow, SPCB and CPCB on 20.07.2011. Also we have prepared and submitted On Site Emergency plan to the competent authority. Copy of submitted letter attached herewith as Annexure-4
8	As proposed, green belt shall be developed in 33 % of the plant area. Selection of plant species should be as per the CPCB guidelines in consultation with the DFO.	Complied. 38% Green Belt of total plant area has already been provided with three rows along with boundary wall in plant premises in consultation with DFO (Divisional Forest Officer) and CPCB guidelines. Gap filling plantation being carried out for maintaining the survival rate of Plantation. Photographs of Green Belt is attached herewith as Annexure -5
9	At least 5 % of the total cost of the project shall be earmarked towards the enterprise social commitment	Being Complied. CSR plan prepared and

	(ESC) and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Lucknow. Implementation of such program should be ensured accordingly in a time bound manner.	submitted to MOEF-Regional Office Lucknow, CPCB regional office Lucknow and UEPPCB Dehradun along with E.C compliance report as dated 20.07.2012, This is being implemented in phased manner with the help of local administration.  Many CSR development activities being carried out for upliftment of nearby communities.  CSR projects photographs is attached herewith as Annexure 6.		
10	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Complied. Safe drinking water, sanitation facilities. Medical health care etc. provided in the plant premises. No housing facility provided in plant premises.		
В	General Conditions			
1	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board (SPCB) and the State Government.	Noted and being Complied.		
2	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests.	Noted and being Complied.		
3	At least four ambient air quality monitoring stations shall be established in the downward direction as well as where maximum ground level concentration of PM <sub>10</sub> , SO <sub>2</sub> and NO <sub>x</sub> are anticipated in consultation with the SPCB including one ambient air quality monitoring station in the downwind direction. Data on ambient air quality and stack emission should be regularly submitted to this Ministry including its Regional Office at Lucknow and the SPCB / CPCB once in six months.	Being Complied. In consultation with RO, UEPPCB, 4 Ambient air quality monitoring location finalized including downwind direction as well as maximum ground level concentration anticipated areas. CAAQMS also installed at plant premises. Monthly monitoring being carried out in plant area. Data on ambient air quality and stack emission is being submitted regularly as stipulated. Continuous on-line Ambient air quality monitoring station (CAAQMS) is also installed in the plant premises to monitor the ambient air continuously. Emission level is being maintained well within the stipulated limit. Copy of last six months Ambient & Stack Air quality monitoring reports attached herewith as Annexure-1(a) & 1 (b) respectively. Photograph of CEMS & CAAQMS are attached herewith as Annexure-2.		
4	Industrial wastewater shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19 <sup>th</sup> May, 1993 and 31 <sup>st</sup> December, 1993 or as amended form time to time. The treated wastewater shall be utilized for plantation purpose.	Being Complied. The domestic effluent is being treated in the STP to ensure stipulated quality and used for plantation. Photograph of STP is attached		

5	The overall noise levels in and around the plant area shall be kept well within the standards (85 dB) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dB (daytime) and 70 dB (nighttime)	Being Complied. Acoustic enclosures/silencers are provided for DG, compressors, blowers and exhaust fans to ensure the noise levels within the factory premises is within the stipulated levels for industrial area. Green Belt along with boundary provided to limit the noise from the plant to surrounding areas.  Noise monitoring reports are attached herewith as Annexure 1(e).
6	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	Being complied. Pre-employment & periodic medical examinations are being carried out for the relevant occupational hazards at a regular frequency, as per statutory requirements.
7	The company shall develop rain water harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table.	Complied. Three rain water storage ponds of capacity 2542, 1500 and 841 cum already constructed inside the plant area for maximum storage & reuse of the rainwater in the process. In FY 2018-19, we have reused around 6043 cu.m rainwater in the process for conserving the fresh water. Photograph of the same is attached herewith as Annexure-3.
8	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc.	EIA/EMP report being implemented, Socio- Economic development activities are being implemented as per action plan. Many CSR development activities being carried out for upliftment of nearby communities. CSR projects photographs is attached herewith as Annexure 6.
9	The requisite funds shall be earmarked towards the capital cost and recurring cost/annum for environmental protection measures and judiciously utilized to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. The funds so provided shall not be diverted for any other purpose.	operation and maintenance of the facility during operation phase. The said funds not been diverted for any other purpose.
10	A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad / Municipa Corporation, Urban Local Body and the local NGO, if any from whom suggestions / representations, if any, were	Submitted to the Panchayat/ Zila Panchayat, Municipal Corporation and Urban Local Body (SIDCUL).  SC letter is also available on company website.



		Castingmpm.pdf
11	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MOEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; RSPM, SO <sub>2</sub> , NOx and Lead (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	Being Complied. Submission of Six monthly compliance report of environmental condition with six months monitoring results (in hard copies as well as by e-mail) to RO, MOEF&CC, Dehradun, Zonal Office CPPCB, Lucknow, MS UEPPCB, Dehradun and RO UEPPCB, Kashipur being ensured.  Six monthly compliance reports are being uploaded on company website. Link of website uploading EC compliance of Apr 18 to Sept 18 is <a href="https://www.hzlindia.com/wp-content/uploads/Environment-clearance-compliance-report-MC-April18-to-Sept18.pdf">https://www.hzlindia.com/wp-content/uploads/Environment-clearance-compliance-report-MC-April18-to-Sept18.pdf</a> Display board on all criteria pollutants provided at main gate which is being updated regularly. Photograph of board is attached herewith as Annexure 8.
12	The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MOEF at Lucknow, the respective Zonal Office of CPCB and the SPCB. The Regional Office of this Ministry at Lucknow / CPCB / SPCB shall monitor the stipulated conditions.	Being Complied. Submission of Six monthly compliance report of environmental condition with six months monitoring results (in hard copies as well as by e-mail) to RO, MOEF&CC, Dehradun, Zonal Office CPPCB, Lucknow, MS UEPPCB, Dehradun and RO UEPPCB, Kashipur being ensured. Link of website uploading EC compliance of Apr 18 to Sept 18 is <a href="https://www.hzlindia.com/wp-content/uploads/Environment-clearance-compliance-report-MC-April18-to-Sept18.pdf">https://www.hzlindia.com/wp-content/uploads/Environment-clearance-compliance-report-MC-April18-to-Sept18.pdf</a>
13	The environmental statement for each financial year ending 31 <sup>st</sup> March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company alongwith the status of compliance of environmental conditions and shall also be sent to the respective Regional Offices of the MOEF by e-mail.	Environmental statement of every year is being submitted to Regional Office MoEF, CPCB and UEPPCB. Last Environment statement was submitted to RO, MoEF&CC vide letter no HZL/PMP/ENV/2017-18/01 dated 06.08.2018  Environment statement of every year has been their and the statement of every year has been statement.
14	The Project Proponent shall inform the public that the project has been accorded environmental clearance by	Complied. Published in newspapers of Daini

	the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment and Forests at http://envfor.nic.in. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the Regional office at Lucknow.	submitted to Regional office at Lucknow along with reply of letter No. IV/ENV/Utr/Ind-34/110/2011/156 dated 08.06.2011 & on 20.07.2011 to CPCB Regional office Lucknow and UEPPCB Dehradun.
15	Project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.	Noted & Complied. Plant was commissioned in March 2012.

ANNEXURE - I(a)





### EKO PRO ENGINEERS PVT. LTD.

**Environmental Consultants and Analytical Laboratory** (An ISO 9001:2015 Certified Company)

Office & Laboratory 32/41, South Side of G. T. Road, UPSIDC Industrial Area, Ghaziabad - 201 009 (Delhi-NCR) INDIA. Cordad No.: 9711159210, 9711159427, SMSWhatsapp No.: 9711183422; E-ms#: email@ekopro.in, ekoproengineers@gmail.com, website: www.ekopro.in

> For Any Query Contact Group: A-9711159337

Contact: +91 - 9810243870

### **TEST REPORT**

### Ambient Air Quality Monitoring

Test Report No. :

EK0/EV-AA/110/010419

Issue Date

06/04/2019

Issued To

HINDUSTAN ZINC LIMITED

PLOT NO. - 2

SECTOR - 14, IIE, SIDCUL PANTNAGAR, RUDRAPUR

(UTTRAKHAND)

Sample Description

Ambient Air

Sample Drawn on

28/03/2019 To 29/03/2019

Sample Drawn by

EPEPL(Mr. Sudesh Dubey)

Sample Received on

01/04/2019

Sampling Location

ESP Corner of the Exiting Plot (SE Corner of Lead Plant)

Sampling Plan & Procedure

SOP-AAQ/15

Analysis Duration

01/04/2019 To 05/04/2019

Sampling Time

24.0 Hrs.

Ambient Temprature (deg °C)

32.0

Average Flow Rate of SPM (m³/min)

1.1

Average Flow Rate of Gases (Ipm.)

1.0

Weather Conditions

Clear

Remark (if any)

NA

### RESULTS

S.No.	PARAMETER	Test Methods	Results	Units	Limits as per EPA*
1	Particulate Matter (PM10)	IS:5182 (P-23)	89.2	μg/m³	100.0
2	Particulate Matter (PM2.5)	Eko/Chem/SOP/AAQ-01	51.6	µg/m³	60.0
3	Sulphur dioxide (as SO2)	IS:5182 (P-2)	14.7	μg/m³	80.0
4	Nitrogen Dioxide (as NO2)	IS:5182 (P-8)	31.2	µg/m³	80.0
5	Carbon Monoxide (as CO)	IS:5182 (P-10)	<1.15	mg/m³	4.0
6	Lead (as Pb)	IS:5182 (P-22)	<0.1	hā/w <sub>3</sub>	1.0
7	Nickel as Ni	Eko/Chem/SOP/AAQ-02	<15.0	ng/m³	20.0
8	Arsenic (as As)	Eko/Chem/SOP/AAQ-02	<5.0	ng/m³	6.0
9	Ozone (as O3)	IS:5182 (P-9)	<10.0	hg/m <sub>a</sub>	180.0
10	Ammonia (as NH3)	APHA 3rd Ed. Method 401	<20.0	µg/m³	400.0
11	Benzene (as C6H6)	IS:5182 (P-11)	<1.0	µg/m³	5.0
12	Benzo (alpha) Pyrine-Particulate Phase only	IS:5182 (P-12)	<1.0	ng/m³	0 1.0

For EKO PRO ENGINE



Environmental Consultants and Analytical Laboratory
(An ISO 9001:2015 Certified Company)

Office & Laboratory: 32/41, South Side of G. T. Road, UPSIDC Industrial Area, Ghaziabad - 201 009 (Delhi-NCR) INDIA. Contact No.: 9711159210, 9711159427, SMS/Whatsapp No.: 9711153422; E-mail: small@ekopro.in.ekoproengineers@gmail.com, website: www.ekopro.in.

For Any Query Contact Group : A-9711159337

06/04/2019

Issue Date

### TEST REPORT

Ambient Air Quality Monitoring

Test Report No. :

Issued To

EK0/EV-AA/111/010419

HINDUSTAN ZINC LIMITED

PLOT NO. - 2

SECTOR - 14, IIE, SIDCUL PANTNAGAR, RUDRAPUR

(UTTRAKHAND)

Sample Description

Ambient Air

Sample Drawn on

28/04/2019 To 29/03/2019

Sample Drawn by

EPEPL(Mr. Sudesh Dubey)

Sample Received on

01/04/2019

Sampling Location

Canteen East Side in New Plant

Sampling Plan & Procedure

SOP-AAQ/15

Analysis Duration

01/04/2019 To 05/04/2019

Sampling Time

24.0 Hrs.

Ambient Temprature (deg °C)

32.0

Average Flow Rate of SPM (m³/min)

1.1

Average Flow Rate of Gases (Ipm.)

1.0

Weather Conditions

Clear

Remark (if any)

NA

### RESULTS

S.No.	PARAMETER	Test Methods	Results	Units	Limits as per EPA*
1	Particulate Matter (PM10)	IS:5182 (P-23)	86.3	µg/m³	100.0
2	Particulate Matter (PM2.5)	Eko/Chem/SOP/AAQ-01	50.8	µg/m³	60.0
3	Sulphur dioxide (as SO2)	IS:5182 (P-2)	13.7	µg/m³	80.0
4	Nitrogen Dioxide (as NO2)	IS:5182 (P-6)	27.6	µg/m³	80.0
5	Carbon Monoxide (as CO)	IS:5182 (P-10)	<1.15	mg/m³	4.0
6	Lead (as Pb)	IS:5182 (P-22)	<0.1	µg/m³	1.0
7	Nickel as Ni	Eko/Chem/SOP/AAQ-02	<15.0	ng/m³	20.0
8	Arsenic (as As)	Eko/Chem/SOP/AAQ-02	<5.0	ng/m³	6.0
9	Ozone (as O3)	IS:5182 (P-9)	<10.0	µg/m³	180.0
10	Ammonia (as NH3)	APHA 3rd Ed. Method 401	<20.0	µg/m³	400.0
11	Benzene (as C6H6)	IS:5182 (P-11)	<1.0	µg/m³	5.0
12	Benzo (alpha) Pyrine-Particulate Phase only	IS:5182 (P-12)	<1.0	ng/m³	7 1.0

For EKO PRO ENGINE

Authorized Signatory

Analytical Services - Analysis of Environment, Food, AYUSH, Cosmetics, Suiting Material, Petroleum & Material Samples in Biological, Chemical, Electrical, Mechanical & NOT Disciplines.

Consulting Services - ElA, SIA, EC Compliances, Consultancy for NOC from CGWA, Hydrogeological Studies, Environmental Audit & other studies, Ground Water Rage No.:1/2 inn.



Environmental Consultants and Analytical Laboratory (An ISO 9001:2015 Certified Company)

Office & Laboratory: 32/41, South Side of G. T. Road, UPSIDC Industrial Area, Ghaziabad - 201 009 (Delhi-NCR) INDIA. Contact No.: 9711159210, 9711159427, SMSW/ratsapp No.: 9711159427, E-mail: email@eliopro.in.ekoproengineeru@gmail.com, website: www.ekopro.in

For Any Query Contact Group : A-9711159337

### **TEST REPORT**

**Ambient Air Quality Monitoring** 

Test Report No. :

EK0/EV-AA/109/010419

Issue Date

06/04/2019

Issued To

HINDUSTAN ZINC LIMITED

PLOT NO. - 2

SECTOR - 14, IIE, SIDCUL PANTNAGAR, RUDRAPUR

(UTTRAKHAND)

Sample Description

Ambient Air

Sample Drawn on

29/03/2019 To 30/03/2019

Sample Drawn by

EPEPL(Mr. Sudesh Dubey)

Sample Received on

01/04/2019

Sampling Location

Back Side of DG Area

Sampling Plan & Procedure

SOP-AAQ/15

Analysis Duration

01/04/2019 To 05/04/2019

Sampling Time

24.0 Hrs.

Ambient Temprature (deg °C)

32.0

Average Flow Rate of SPM (m³/min)

1.1

Average Flow Rate of Gases (Ipm.)

1.0 Clear

Weather Conditions Remark (if any)

NA

### RESULTS

		Test Mathada	Results	Units	Limits as per
S.No.	PARAMETER	Test Methods	Results	Onits	EPA*
1	Particulate Matter (PM10)	IS:5182 (P-23)	92.8	µg/m³	100.0
2	Particulate Matter (PM2.5)	Eko/Chem/SOP/AAQ-01	53.2	µg/m³	60.0
3	Sulphur dioxide (as SO2)	IS:5182 (P-2)	12.8	µg/m³	80.0
4	Nitrogen Dioxide (as NO2)	IS:5182 (P-6)	32.1	µg/m³	80.0
5	Carbon Monoxide (as CO)	IS:5182 (P-10)	<1.15	mg/m³	4.0
6	Lead (as Pb)	IS:5182 (P-22)	<0.1	µg/m³	1.0
7	Nickel as Ni	Eko/Chem/SOP/AAQ-02	<15.0	ng/m³	20.0
8	Arsenic (as As)	Eko/Chem/SOP/AAQ-02	<5.0	ng/m³	6.0
9	Ozone (as O3)	IS:5182 (P-9)	<10.0	µg/m³	180.0
10	Ammonia (as NH3)	APHA 3rd Ed. Method 401	<20.0	µg/m³	400.0
11	Benzene (as C6H6)	IS:5182 (P-11)	<1.0	µg/m³	5.0
12	Benzo (alpha) Pyrine-Particulate Phase only	IS:5182 (P-12)	<1.0	ng/m³	0 1.0

For EKO PRO ENGINEE



Test Report No. :

Remark (if any)

Issued To

### EKO PRO ENGINEERS PVT. LTD.

**Environmental Consultants and Analytical Laboratory** (An ISO 9001:2015 Certified Company)

Office & Laboratory 32/41, South Side of G. T. Road, UPSIDC Industrial Area, Ghaziabad - 201 009 (Delhi-NCR) INDIA. Contact No.: 9711159210, 9711159427, SMSWhatsapp No.: 9711153422; E-mail: email@ekopro.in, ekoproengineens@gmail.com, website: www.ekopro.in

> For Any Query Contact Group: A-9711159337

Issue Date

06/04/2019

### TEST REPORT

Ambient Air Quality Monitoring

EK0/EV-AA/112/010419

PLOT NO. - 2

SECTOR - 14, IIE, SIDCUL PANTNAGAR, RUDRAPUR

HINDUSTAN ZINC LIMITED

(UTTRAKHAND)

Sample Description Ambient Air

29/03/2019 To 30/03/2019 Sample Drawn on EPEPL(Mr. Sudesh Dubey) Sample Drawn by

Sample Received on 01/04/2019

Near Security Main Gate Sampling Location

SOP-AAQ/15 Sampling Plan & Procedure

01/04/2019 To 05/04/2019

Analysis Duration 24.0 Hrs. Sampling Time 30.0 Ambient Temprature (deg °C) 1.1 Average Flow Rate of SPM (m³/min)

1.0 Average Flow Rate of Gases (lpm.) Clear Weather Conditions NA

### RESULTS

S.No.	PARAMETER	Test Methods	Results	Units	Limits as per EPA*
	5,000				EFA
	Particulate Matter (PM10)	IS:5182 (P-23)	92.7	µg/m³	100.0
2	Particulate Matter (PM2.5)	Eko/Chem/SOP/AAQ-01	53.4	µg/m³	60,0
)	Sulphur dioxide (as SO2)	IS:5182 (P-2)	13.1	ha/w <sub>3</sub>	80,0
	Nitrogen Dioxide (as NO2)	IS:5182 (P-6)	33.8	µg/m³	80.0
5	Carbon Monoxide (as CO)	IS:5182 (P-10)	<1.15	mg/m³	4.0
5	Lead (as Pb)	IS:5182 (P-22)	<0.1	µg/m³	1.0
7	Nickel as Ni	Eko/Chem/SOP/AAQ-02	<15.0	ng/m³	20.0
3	Arsenic (as As)	Eko/Chem/SOP/AAQ-02	<5.0	ng/m³	6.0
9	Ozone (as O3)	IS:5182 (P-9)	<10.0	pg/m³	180.0
10	Ammonia (as NH3)	APHA 3rd Ed. Method 401	<20.0	µg/m³	400.0
11	Benzene (as C6H6)	IS:5182 (P-11)	<1.0	µg/m³	5.0
12	Benzo (alpha) Pyrine-Particulate Phase only	IS:5182 (P-12)	<1.0	ng/m²	0 1.0

For EKO PRO ENGINE

SHO PRO



### EKO PRO ENGINEERS PVT. LT

Environmental Consultants and Analytical Laboratory (An 150 9001 2015 Centated Co.

TEST REPORT

For Any Query Contact Group: A-9711159337

06/04/2019

issue Date

Stack Emission Analysis

Test Report No. :

EK0/EV-SE/111/010419

Issued To

HINDUSTAN ZING LIMITED

PLOT NO - 2

SECTOR - 14. HE. SIDCUL PANTNAGAR, RUDRAPUR

(UTTRAKHAND)

Sample Description Sample Drawn on

Stack Emission 29/03/2019

Sample Drawn by

EPEPL(Mr. Sudesh Dubey)

Sample Received on Time of Sampling (minutes) 01/04/2019 30.0

Sampling Location Sampling Plan & Procedure NA SOP-SE/09

Analysis Duration

01/04/2019 To 05/04/2019

Source of Emission

Stack Attached To Furnace No.1

Capacity Operating Load 30.0 TPH Normal

Normal Operation Schedule

As per requirement

Type of Stack

Metalic Only

Diameter of Stack (meter)

1.2 at top

Height of Stack from Ground Level (meter)

30.0

Height of Stack from Roof Level (meter)

10.5

Height of Sampling Location (meter)

10.8

Type of Fuel Used

Fuel Consumed per Hour

32.0

Ambient Temperature (°C)

96.0

Stack Temperature (°C) Average Velocity of Fuel Emission (m/sec)

5.1

Average Flow Rate (lpm)

19.6

Control Measures (if any)

Nil

Remark (if any)

Sampling Ins. Used-Stack Monitoring Kit APM-610

RESULTS

_	RESULTS				
S.No.	PARAMETER	Test Methods	Results	Units	LIMITS AS PER EPA*
	Particulate Matter (as PM)	(S : 11255 (P-1)	23.7	ing/Nm <sup>±</sup>	150 0
	Sulphur Dioxide (as SO2)	IS 11256 (P-2)	9.62	mg/Nm²	-
	Oxides of Nitrogen (as NOx)	IS : 11255 (P-7)	53.2	mg/Nm²	
	Carbon monoxide (as CO)	IS 13270	<0.2	% V/V	10
	Lead (as Po)	USEPA (P-12)	<1.0	mg/Nm²	1 400
	Total Hydrocarbon (as HC)	15 5162 (Part 17)	ND	mg/Nya*	The same of

For EKO PRO ENGINEERS PV



### EKO PRO ENGINEERS PVT.

Environmental Consultants and Analytical Laboratory (An ISO 9001:2015 Gertified Company)

PROTECT 12 41 South Side of G. T. Road LIPSIDG Industrial Area, Charlebox - 201 009 (Demi-NOR) INDIA.

For Any Query Contact Group A-9711169337

Test Report No. :

EK0/EV-SE/111/010419

Jesus Date

06/04/2019

5.No. PARAMETER	Test Methods	Rosults	Units	LIMITS AS PER EPA*
7, Total VOC	APHAIAIR	ND	ma/Nm³	

"End of Report"

- 1. The results given above are ratated to the tested sample, as received. & mentioned parameters. The customer asked for the above tests only.
- 2. This lest report will not be generated again, either wholly or in part, without written permission of the Laboratory
- This test report will not be use for any publicity/legal purpose.
- 4. This test samples will be disposed off after two weeks from the date of issue of test report, unless until specified by the customer.
- 5. Responsibility of the Laboratory is limited to the invoiced amount only.

FOR END PRO ENDINCEDS



**Environmental Consultants and Analytical Laboratory** (An ISO 9001:2015 Certified Company)

Office & Laboratory 32/41, South Side of G. T. Road, UPSIDC Industrial Area, Ghaziebad - 201 009 (Delhi-NCR) INDIA. Coreact No.: 9711159210, 9711159427, SMSWhatsapp No.: 9711153422; E-mail: email@elcopro.in. ekoproengineers@gmail.com, website: www.ekopro.in

For Any Query Contact

	TEST REPORT		Group : A-97		
	Stack Emission Analysis	-1150			
Test Report No. : EK0/EV-SE/113/	010419		Issue Date	06/04/2019	
Issued To	HINDUSTAN ZINC LIMITED				
	PLOT NO 2				
	SECTOR - 14, IIE, SIDCUL				*
	PANTNAGAR, RUDRAPUR				
	(UTTRAKHAND)				
Sample Description	Stack Emission				
Sample Drawn on	28/03/2019				
Sample Drawn by	EPEPL(Mr. Sudesh Dubey)				
Sample Received on	01/04/2019				
Time of Sampling (minutes)	30.0				
Sampling Location	NA				
Sampling Plan & Procedure	SOP-SE/09				
Analysis Duration	01/04/2019 To 05/04/2019				
Source of Emission	Stack Attached To Furnace No.2				
	22.5				

30.0 TPH Capacity Normal Operating Load

As per requirement Normal Operation Schedule Metalic Only Type of Stack 1.2 at top Diameter of Stack (meter)

30.0 Height of Stack from Ground Level (meter) 10.5 Height of Stack from Roof Level (meter) 10.8 Height of Sampling Location (meter)

Type of Fuel Used Fuel Consumed per Hour 32.0 Ambient Temperature (°C) 112.0 Stack Temperature (°C) 5.2 Average Velocity of Fuel Emission (m/sec) 17.5 Average Flow Rate (lpm) Bag Filter Control Measures (if any)

Remark (if any) Sampling Ins. Used-Stack Monitoring Kit APM-610

### RESULTS

		RESULTS			
S.No.	PARAMETER	Test Methods	Results	Units	LIMITS AS PER EPA*
1	Particulate Matter (as PM)	IS : 11255 (P-1)	17.6	mg/Nm³	150.0
2	Sulphur Dioxide (as SO2)	IS: 11255 (P-2)	8.32	mg/Nm³	25,000
3	Oxides of Nitrogen (as NOx)	IS: 11255 (P-7)	56.8	mg/Nm³	0
4	Carbon monoxide (as CO)	IS:13270	<0.2	% V/V	1.0
5	Lead (as Pb)	USEPA (P-12)	<1.0	mg/Nm³	100
8	Total Hydrocarbon (as HC)	IS: 5182 (Part 17)	ND	mg/Nm o	
				1600	A COURSE OF THE PARTY OF THE PA

For EKO PRO ENG



Environmental Consultants and Analytical Laboratory (An ISO 9001:2015 Certified Company)

Office & Laboratory: 32/41, South Side of G. T. Road, UPSIDC Industrial Area, Ghaziabad - 201 009 (Delhi-NCR) INDIA. Contact No.: 9711159210, 9711159270, 971115920, 9711115920, 9711115920, 9711115920, 9711115920, 9711115920, 971115920, 971115920, 9711115920, 971115920, 97111159200, 97111159200, 97111159200, 97111159200, 97111159200, 97111159200

For Any Query Contact Group : A-9711159337

Test Report No. :

EK0/EV-SE/113/010419

Issue Date

06/04/2019

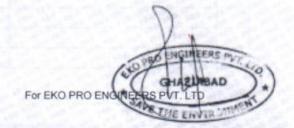
S.No.	PARAMETER	Test Methods	Results	Units	LIMITS AS PER EPA*
7	Total VOC	APHA-AIR	ND	mg/Nm³	

<sup>\*</sup> Details as per EPA-1986 Schedule -VI Part-D

### Notes:

\*\*End of Report\*\*

- The results given above are ralated to the tested sample, as received & mentioned parameters.
   The customer asked for the above tests only.
- 2. This test report will not be generated again, either wholly or in part, without written permission of the Laboratory.
- 3. This test report will not be use for any publicity/legal purpose.
- 4. This test samples will be disposed off after two weeks from the date of issue of test report, unless until specified by the customer.
- 5. Responsibility of the Laboratory is limited to the invoiced amount only.





### EKO PRO ENGINEERS PVT.

**Environmental Consultants and Analytical Laboratory** (An ISO 9001:2015 Certified Company)

Office & Laboratory 32/41, South Side of G. T. Road, UPSIDC Industrial Area, Ghaziabad - 201 009 (Delhi-NCR) INDIA Contact No. 9711159210, 9711159427, SMSWhatsapp No. 9711183422. E-mail: email@elopro.in. eloprotengineers@gmail.com, website. www.elopro.in.

For Any Query Contact

### Group: A-9711159337 TEST REPORT Stack Emission Analysis EK0/EV-SE/112/010419 06/04/2019 Issue Date Test Report No. : Issued To HINDUSTAN ZINC LIMITED PLOT NO. - 2 SECTOR - 14, IIE, SIDCUL PANTNAGAR, RUDRAPUR (UTTRAKHAND) Sample Description Stack Emission 28/03/2019 Sample Drawn on EPEPL(Mr. Sudesh Dubey) Sample Drawn by Sample Received on 01/04/2019 30.0 Time of Sampling (minutes) NA Sampling Location SOP-SE/09 Sampling Plan & Procedure 01/04/2019 To 05/04/2019 Analysis Duration Stack Attached To Lead Kettles Source of Emission

180 MT\*5 Port

Normal

Capacity Operating Load

Batch Wise (3 Shift) Normal Operation Schedule

Metalic With Refractory Lining Type of Stack

1.3 at top Diameter of Stack (meter) 40.3 Height of Stack from Ground Level (meter) 24.5 Height of Stack from Roof Level (meter) 12.0 Height of Sampling Location (meter) HSD Type of Fuel Used 200.0 lph. Fuel Consumed per Hour 32.0 Ambient Temperature (°C) 126.0 Stack Temperature (°C) 7.1 Average Velocity of Fuel Emission (m/sec) 22.6 Average Flow Rate (lpm) Nil Control Measures (if any) Sampling Ins. Used-Stack Monitoring Kit APM-610 Remark (if any)

### RESULTS

Particulate Matter (as PM)	IS: 11255 (P-1)	25.8	mg/Nm³	150.0
Sulphur Dioxide (as SO2)	IS: 11255 (P-2)	11.8	mg/Nm³	
Oxides of Nitrogen (as NOx)	IS: 11255 (P-7)	59.4	mg/Nm³	0.
Carbon monoxide (as CO)	IS:13270	<0.2	% V/V	1.0
Lead (as Pb)	USEPA (P-12)	<1.0	mg/Nm³	Facilities =
Total Hydrocarbon (as HC)	IS: 5182 (Part 17)	ND	mg/Nm 0	2
60 60	iulphur Dioxide (as SO2)  Dixides of Nitrogen (as NOx)  Carbon monoxide (as CO)  ead (as Pb)	IS : 11255 (P-2)   IS : 11255 (P-2)   IS : 11255 (P-7)   IS : 13270   IS : 13270	Sulphur Dioxide (as SO2)     IS : 11255 (P-2)     11.8       Exides of Nitrogen (as NOx)     IS : 11255 (P-7)     59.4       Carbon monoxide (as CO)     IS : 13270     <0.2	Size   Size

For EKO PRO ENO

Contact: +91 - 9810243870



### EKO PRO ENGINEERS PVT. LTD.

Environmental Consultants and Analytical Laboratory (An ISO 9001:2015 Certified Company)

Office & Laboratory : 32/41, South Side of G. T. Road, UPSIDC Industrial Area, Ghaziabad - 201 009 (Delhi-NCR) INDIA. Contact No. 9711159210, 9711159427, SMSWhatsapp No. 9711163422. E-mail: email@ekopro.in.ekoproengineers@gmail.com, website: www.ekopro.in

For Any Query Contact Group: A-9711159337

Test Report No. :

EK0/EV-SE/112/010419

Issue Date

06/04/2019

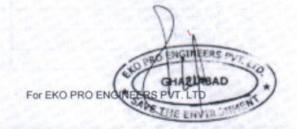
S.No. PARAMETER	Test Methods	Results	Units	LIMITS AS PER EPA*
7 Total VOC	APHA-AIR	ND	mg/Nm³	

<sup>\*</sup> Details as per EPA-1986 Schedule -VI Part-D

### Notes:

"End of Report"

- The results given above are ralated to the tested sample, as received & mentioned parameters.
   The customer asked for the above tests only.
- 2. This test report will not be generated again, either wholly or in part, without written permission of the Laboratory.
- 3. This test report will not be use for any publicity/legal purpose.
- 4. This test samples will be disposed off after two weeks from the date of issue of test report, unless until specified by the customer.
- 5. Responsibility of the Laboratory is limited to the invoiced amount only.





**Environmental Consultants and Analytical Laboratory** (An ISO 9001:2015 Certified Company)

Office & Laboratory 32/41, South Side of G. T. Road, UPSIDC Industrial Area, Gluziabad - 201 009 (Delhi-NCR) INDIA. Contact No.: 9711159210, 9711159427, SMS/Whatsapp No.: 9711183422; E-mail: emplig@exporn.in, ekoproengineers@gmail.com, website: www.ekopro.in

For Any Query Contact

	TEST REPORT	Group : A-97	11159337
	Stack Emission Analysis		
Test Report No. : EK0/EV-SE/116/010419 issued To	HINDUSTAN ZINC LIMITED PLOT NO 2 SECTOR - 14, IIE, SIDCUL PANTNAGAR, RUDRAPUR (UTTRAKHAND)	Issue Date	06/04/2019
Sample Description	Stack Emission		
Sample Drawn on	28/03/2019		
Sample Drawn by	EPEPL(Mr. Sudesh Dubey)		
Sample Received on	01/04/2019		
Time of Sampling (minutes)	30.0		
Sampling Location	NA		
Sampling Plan & Procedure	SOP-SE/09		
Analysis Duration	01/04/2019 To 05/04/2019		
Source of Emission	Stack Attached To DG Set No.1		

7.5 MW Capacity Operating Load Normal

As per requirement Normal Operation Schedule Type of Stack Metalic Only

1.1 Diameter of Stack (meter) 50.0 Height of Stack from Ground Level (meter) 36.0 Height of Stack from Roof Level (meter)

14.0 From Ground Level Height of Sampling Location (meter)

HSD Type of Fuel Used 1600.0 lph. Fuel Consumed per Hour 32.0 Ambient Temperature (°C) 308.0 Stack Temperature (°C) 17.3 Average Velocity of Fuel Emission (m/sec) 19.6 Average Flow Rate (lpm) Control Measures (if any) Nil

Remark (if any) Sampling Ins. Used-Stack Monitoring Kit APM-610

### RESULTS

S.No.	PARAMETER	Test Methods	Results	Units	LIMITS AS PER EPA*
1	PM (at 15% O2 Correction)	IS: 11255 (P-1)	39.6	mg/Nm³	75.0
2	Sulphur Dioxide (as SO2)	IS: 11255 (P-2)	28.5	mg/Nm³	
3	Oxides of Nitrogen (as NOx) (at 15% O2 Correction)	IS: 11255 (P-7)	292.6	ppmv	710.0
•	Carbon monoxide (as CO) (at 15% O2 Correction)	IS:13270	78.5	mg/Nm³	150.0
5	NMHC (at 15% O2 Correction)	APHA-AIR/GC	27.3	mg/N/n10	100.0

FOR EKO PRO ENGINE



Environmental Consultants and Analytical Laboratory (An ISO 9001:2015 Certified Company)

Office & Laboratory: 32/41, South Side of G. T. Road, UPSIDC Industrial Area, Ghaziabad - 201 009 (Delhi-NCR) INDIA. Contact No.: 9711159210, 9711159427, SMSWhatsapp No.: 9711163422; E-mail: email@elopro.in.ckoprovengenesru@gmail.com, website: www.elopro.in.

For Any Query Contact Group : A-9711159337

Test Report No. :

EK0/EV-SE/116/010419

Issue Date

06/04/2019

S.No.	PARAMETER	Test Methods	Results	Units	LIMITS AS PER EPA*
6	Total VOC	APHA-AIR	ND	mg/Nm³	

<sup>\*</sup> Details as per EPA-1986 Schedule -VI Part-D

Notes:

\*\*End of Report\*\*

- The results given above are ralated to the tested sample, as received & mentioned parameters.
   The customer asked for the above tests only.
- 2. This test report will not be generated again, either wholly or in part, without written permission of the Laboratory.
- This test report will not be use for any publicity/legal purpose.
- 4. This test samples will be disposed off after two weeks from the date of issue of test report, unless until specified by the customer.
- 5. Responsibility of the Laboratory is limited to the invoiced amount only.

For EKO PRO ENGINEERS PVT. LTD

Contact: +91 - 9810243870



### EKO PRO ENGINEERS PVT. LTD.

**Environmental Consultants and Analytical Laboratory** (An ISO 9001:2015 Certified Company)

Office & Laboratory : 32/41, South Side of G. T. Road, UPSIDC Industrial Area, Ghazinbad - 201 009 (Delhi-NCR) INDIA. Consect No.: 8711159210, 9711159427, SMS-Whatsapp No.: 9711163422; E-mail: email@exopro.in, ekoproengineers@gmail.com, website: www.ekopro.in

> For Any Query Contact Group: A-9711159337

### **TEST REPORT**

		Stack Emission Analysis		
Test Report No. : Issued To	EK0/EV-SE/117/010419	HINDUSTAN ZINC LIMITED PLOT NO 2 SECTOR - 14, IIE, SIDCUL PANTNAGAR, RUDRAPUR (UTTRAKHAND)	Issue Date	06/04/2019
Sample Description Sample Drawn on		Stack Emission 28/03/2019		

Sample Drawn by EPEPL(Mr. Sudesh Dubey) Sample Received on 01/04/2019 Time of Sampling (minutes) 30.0

Sampling Location NA SOP-SE/09 Sampling Plan & Procedure

Analysis Duration 01/04/2019 To 05/04/2019 Stack Attached To DG Set No.2 Source of Emission

Capacity Normal Operating Load

As per requirement Normal Operation Schedule Metal/Circular Type of Stack

11 Diameter of Stack (meter) 50.0 Height of Stack from Ground Level (meter) 36.0 Height of Stack from Roof Level (meter)

14.0 From Ground Level Height of Sampling Location (meter)

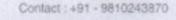
HSD Type of Fuel Used Fuel Consumed per Hour 1600.0 lph. 32.0 Ambient Temperature (°C) Stack Temperature (°C) 284.0 16.3 Average Velocity of Fuel Emission (m/sec) 19.6 Average Flow Rate (lpm) Control Measures (if any) Nil

Remark (if any) Sampling Ins. Used-Stack Monitoring Kit APM-610

### RESULTS

		KESULIS			
S.No.	PARAMETER	Test Methods	Results	Units	LIMITS AS PER EPA*
1	PM (at 15% O2 Correction)	IS: 11255 (P-1)	46.5	mg/Nm³	75.0
2	Sulphur Dioxide (as SO2)	IS: 11255 (P-2)	37.8	mg/Nm²	Contract of the
3	Oxides of Nitrogen (as NOx) (at 15% O2 Correction)	IS: 11255 (P-7)	269.3	ppmv	710.0
4	Carbon monoxide (as CO) (at 15% O2 Correction)	IS :13270	76.8	mg/Nm³	150.0
5	NMHC (at 15% O2 Correction)	APHA-AIR/GC	35.8	mg/N/n10	100.0

For EKO PRO ENGIN





**Environmental Consultants and Analytical Laboratory** (An ISO 9001:2015 Certified Company)

Office & Laboratory : 32/41, South Side of G. T. Road, UPSIDC Industrial Area, Chazinbaid - 201 (009 (Delhi-NCR) INDIA Contact No.: 9711159210, 9711159427, SMSWhatsapp No.: 9711153422; E-mail: email@ekopro.in.ekoproengineers@gmail.com, website: www.ekopro.in

> For Any Query Contact Group: A-9711159337

Test Report No. :

EK0/EV-SE/117/010419

Issue Date

06/04/2019

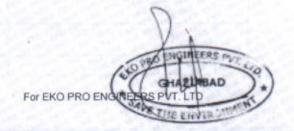
S.No. PARAMETER	Test Methods	Results	Units	LIMITS AS PER EPA*
6 Total VOC	APHA-AIR	ND	mg/Nm³	-

<sup>\*</sup> Details as per EPA-1986 Schedule -VI Part-D

Notes:

"End of Report"

- 1. The results given above are ralated to the tested sample, as received & mentioned parameters. . The customer asked for the above tests only.
- 2. This test report will not be generated again, either wholly or in part, without written permission of the Laboratory.
- 3. This test report will not be use for any publicity/legal purpose.
- 4. This test samples will be disposed off after two weeks from the date of issue of test report, unless until specified by the customer.
- 5. Responsibility of the Laboratory is limited to the invoiced amount only.







Test Report No. :

### EKO PRO ENGINEERS PVT. LT

**Environmental Consultants and Analytical Laboratory** (An ISO 9001:2015 Certified Company)

Office & Laboratory 32/41, South Side of G. T. Road, UPSIDC Industrial Area, Ghazlabad - 201 009 (Delhi-NCR) INDIA. Contact No.: 9711159210, 9711159427, SMS/Whatsepp No.: 9711163422, E-mail: email@ekopro.in. ekoproengineers@gmail.com, website: www.ekopro.in

> For Any Query Contact Group: A-9711159337

Issue Date

06/04/2019

### **TEST REPORT**

Workzone Air Quality Monitoring

EK0/EV-WZ/109/010419

HINDUSTAN ZINC LIMITED Issued To

PLOT NO. - 2

SECTOR - 14, IIE, SIDCUL PANTNAGAR, RUDRAPUR

(UTTRAKHAND)

Workzone Air Sample Description

29/03/2019 Sample Drawn on

EPEPL(Mr. Sudesh Dubey) Sample Drawn by

01/04/2019 Sample Received on

Zinc Furnace Top Floor Sampling Location

SOP-AAQ/15 Sampling Plan & Procedure

01/04/2019 To 05/04/2019

Analysis Duration 08 Hrs. Sampling Time 28.0 Ambient Temprature (deg °C)

1.65 Average Flow Rate of SPM (m³/min) 1.65 Average Flow Rate of Gases (lpm.) Clear

Weather Conditions NA Remark (if any)

### RESULTS

		ILLOUZ.			T - 1 10 1 1 1 - 14
S.No.	PARAMETER	Test Methods	Results	Units	Permissible Limit
	SPM	IS:5182 (P-4)	0.472	mg/m³	15.0 as per OSHA
2	Sulphur Dioxide (as SO2)	IS:5182 (P-2)	0.007	mg/m³	5.0 as per Factories Act,1948
3	Nitrogen Dioxide (as NO2)	IS:5182 (P-6)	0.023	mg/m³	6.0 as per Factories Act,1948
4	Lead (as Pb)	IS:5182 (P-22)	<0.1	mg/m³	0,15 as per Factories Act,1948
5	Zinc (as Zn)	SOP-S/99/51	<0.1	mg/m³	100

\*\*End of Report\*\*

### Notes:

 The results given above are ralated to the tested sample, as received & mentioned parameters. The customer asked for the above tests only.

2. This test report will not be generated again, either wholly or in part, without written permission of the Laboratory.

This test report will not be use for any publicity/legal purpose.

4. This test samples will be disposed off after two weeks from the date of issue of test report, unless until specified by the customer.

Responsibility of the Laboratory is limited to the invoiced amount only.

For EKO PRO ENGINE





Environmental Consultants and Analytical Laboratory (An ISO 9001:2015 Certified Company)

Office & Laboratory: 32/41, South Side of G. T. Road, UPSIDC Industrial Area, Ghaziabad - 201 009 (Delhi-NCR) INDIA. Contact No.: 9711159210, 9711159217, SMS/Whatsapp No.: 9711153222; E-mail: email@eliopro.in, elioproengineers@gmail.com, website: www.ekopro.in

For Any Query Contact Group : A-9711159337

Issue Date

06/04/2019

### **TEST REPORT**

Workzone Air Quality Monitoring

Test Report No.: EK0/EV-WZ/107/010419

HINDUSTAN ZINC LIMITED

PLOT NO. - 2

SECTOR - 14, IIE, SIDCUL PANTNAGAR, RUDRAPUR

(UTTRAKHAND)

Sample Description

Workzone Air

Sample Drawn on

Issued To

29/03/2019

Sample Drawn by

EPEPL(Mr. Sudesh Dubey)

Sample Received on

01/04/2019

Sampling Location

Zinc Casting Machine Area

Sampling Plan & Procedure

SOP-AAQ/15

Analysis Duration

01/04/2019 To 05/04/2019

Sampling Time

08 Hrs. 28.0

Ambient Temprature (deg °C) Average Flow Rate of SPM (m³/min)

1.6

Average Flow Rate of Gases (Ipm.)

1.6

Weather Conditions

Clear

Remark (if any)

NA

### RESULTS

		RESULIS			
S.No.	PARAMETER	Test Methods	Results	Units	Permissible Limit
1	SPM	IS:5182 (P-4)	0,536	mg/m³	15.0 as per OSHA
2	Sulphur Dioxide (as SO2)	IS:5182 (P-2)	0.009	mg/m³	5.0 as per Factories Act, 1948
3	Nitrogen Dioxide (as NO2)	IS:5182 (P-6)	0.020	mg/m³	6.0 as per Factories Act, 1948
1	Lead (as Pb)	IS:5182 (P-22)	<0.1	mg/m³	0.15 as per Factories Act,1948
5	Zinc (as Zn)	SOP-S/99/51	<0.1	mg/m³	

### Notes :

\*\*End of Report\*\*

- The results given above are ralated to the tested sample, as received & mentioned parameters.
   The customer asked for the above tests only.
- 2. This test report will not be generated again, either wholly or in part, without written permission of the Laboratory.
- 3. This test report will not be use for any publicity/legal purpose.
- This test samples will be disposed off after two weeks from the date of issue of test report, unless until specified by the customer.
- 5. Responsibility of the Laboratory is limited to the invoiced amount only.

For EKO PRO ENGINEERS POLICE ENVIRONMENT



Environmental Consultants and Analytical Laboratory
(An ISO 9001:2015 Certified Company)

Office & Laboratory: 32/41, South Side of G. T. Road, UPSIDC Industrial Area, Ghaziabad - 201 009 (Delhi-NCR) INDIA. Contact No. 9711159210, 9711159270, 9711159427, SMSWhatsapp No. 9711163422. E-mail: email@exopm.in.ekoproengineers@gmail.com, website: www.ekopro.in

For Any Query Contact Group : A-9711159337

### **TEST REPORT**

Workzone Air Quality Monitoring

Test Report No. :

EK0/EV-WZ/108/010419

Issue Date

06/04/2019

Issued To

HINDUSTAN ZINC LIMITED

PLOT NO. - 2

SECTOR - 14, IIE, SIDCUL PANTNAGAR, RUDRAPUR

(UTTRAKHAND)

Sample Description

Workzone Air

Sample Drawn on

29/03/2019

Sample Drawn by

EPEPL(Mr. Sudesh Dubey)

Sample Received on

01/04/2019

Sampling Location

Lead Furnace Top Floor

Sampling Plan & Procedure

SOP-AAQ/15

Analysis Duration

01/04/2019 To 05/04/2019

Compline Time

08 Hrs.

Sampling Time

28.0

Ambient Temprature (deg °C) Average Flow Rate of SPM (m³/min)

1.75

Average Flow Rate of Gases (lpm.)

1.75

Weather Conditions

Clear

Remark (if any)

NA

### RESULTS

S.No.	PARAMETER	Test Methods	Results	Units	Permissible Limit
1	SPM	IS:5182 (P-4)	0.496	mg/m²	15.0 as per OSHA
2	Sulphur Dioxide (as SO2)	IS:5182 (P-2)	0.011	mg/m³	5.0 as per Factories Act,1948
3	Nitrogen Dioxide (as NO2)	IS:5182 (P-6)	0.026	mg/m³	6.0 as per Factories Act,1948
4	Lead (as Pb)	IS:5182 (P-22)	<0.1	mg/m³	0.15 as per Factories Act,1948
5	Zinc (as Zn)	SOP-S/99/51	<0,1	mg/m³	

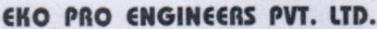
### Notes:

\*\*End of Report\*\*

- The results given above are ralated to the tested sample, as received & mentioned parameters.
   The customer asked for the above tests only.
- 2. This test report will not be generated again, either wholly or in part, without written permission of the Laboratory.
- 3. This test report will not be use for any publicity/legal purpose.
- 4. This test samples will be disposed off after two weeks from the date of issue of test report, unless until specified by the customer.
- 5. Responsibility of the Laboratory is limited to the invoiced amount only.

For EKO PRO ENG





**Environmental Consultants and Analytical Laboratory** (An ISO 9001:2015 Certified Company)



Office & Laboratory : 32/41, South Side of G. T. Road, UPSIDC Industrial Area, Ghazinbad - 201 009 (Delhi-NCR) INDIA Contact No. 9711159210, 9711159427. SMSWhatsapp No. 9711153422. E-mail: email@excpro.in.ekcproeng/seeru@gmail.com, website: www.ekopto.in

For Any Query Contact

ULR: TC506319000002631P

### TEST REPORT Water Sample Analysis

Group: A-9711159337

Test Report No. :

EK0/EV-WA/027/010419

Issue Date

06/04/2019

Issued To

HINDUSTAN ZINC LIMITED

PLOT NO 2

SECTOR-14, IIE, SIDCUL, PANTNAGAR

RUDRAPUR UTTRAKHAND

Sample Description

Ground Water

Sample Drawn on

30/03/2018

Sample Drawn by

EPEPL(Mr. Sudesh Dubey)

Sample Received on

01/04/2019

Sampling Location

From Borerwell

Sampling Plan & Procedure

SOP-W/66

Sample Quantity

5.0 Litre Normal

**Environmental Condition** Analysis Duration

01/04/2019 To 06/04/2019

Remark (if any)

NA

### RESULTS

		·			and the second s	
S.No.	PARAMETER	Test Methods	Results	Units	IS: 10500-201	2 (Limits)*
				Acceptable	Permissible	
1	Colour	IS: 3025 (P-4)	<5.0	Hazen	5.0	15.0
2	Odour	IS: 3025 (P-5)	Agreeable		Agreeable	Agreeable
3	Taste	IS: 3025 (P-7)	Agreeable		Agreeable	Agreeable
4	Turbidity	IS: 3025 (P-10)	<1.0	NTU	1.0	5.0
5	pH	IS: 3025 (P-11)	7.41		6.5-8.5	No relaxation
6	Total Hardness (as CaCO3)	IS: 3025 (P-21)	172.0	mg/L	200.0	600.0
7	Calcium (as Ca)	IS: 3025 (P-40)	34.4	mg/L	75.0	200.0
8	Iron (as Fe)	IS: 3025 (P-53)	<0.005	mg/L	1.0	No relaxation
9	Chloride (as CI)	IS: 3025 (P-32)	20.6	mg/L	250.0	1000.0
10	Residual Free Chlorine	IS: 3025 (P-26)	<0.2	mg/L	0.2	1.0
11	Chloramines (as CI2)	IS: 3025 (P-26)	<0.2	mg/L	4.0	No relaxation
12	Fluoride (as F)	IS: 3025 (P-60)	<1.0	mg/L	1.0	1.5
13	Total Dissolved Solids	IS: 3025 (P-16)	320.0	mg/L	500.0	2000.0
14	Magnesium (as Mg)	IS: 3025 (P-46)	20.4	mg/L	30.0	100.0
15	Copper (as Cu)	IS: 3025 (P-42)	<0.005	mg/L	0.05	1.5
16	Manganese (as Mn)	IS: 3025 (P-59)	<0.005	mg/L	0.1	N 0.3

For EKO PRO ENOTAL



**Environmental Consultants and Analytical Laboratory** (An ISO 9001:2015 Certified Company)

Office & Laboratory : 32/41, South Side of G. T. Road, UPSIDC Industrial Area, Ghaziabad - 201 009 (Delhi-NCR) INDIA Contact No. 5711155210, 9711159427, SMSWhatsapp No. 9711163422; E-mail: email@ekopro.in, ekoproengineers@gmail.com, website: www.ekopro.in

> For Any Query Contact Group: A-9711159337

Contact: +91 - 9810243870

ULR: TC506319000002631P

Test Report No. :

EK0/EV-WA/027/010419

Issue Date

06/04/2019

S.No.	PARAMETER	Test Methods	Results	Units	IS: 10500-20	12 (Limits)*
					Acceptable	Permissible
17	Sulphate (as SO4)	IS: 3025 (P-24)	32.5	mg/L	200.0	400.0
18	Nitrate (as NO3)	IS: 3025 (P-34)	1.32	mg/L	45.0	No relaxation
19	Phenolic Compounds (as C6H5OH)	IS: 3025 (P-43)	<0.001	mg/L	0.001	0.002
20	Mercury (as Hg)	IS: 3025 (P-48)	<0.001	mg/L	0.001	No relaxation
21	Selenium (as Se)	IS: 3025 (P-56)	<0.005	mg/L	0.01	No relaxation
22	Arsenic (as As)	IS: 3025 (P-37)	<0.005	mg/L	0.01	No relaxation
23	Cyanide (as CN)	APHA 4500 CN-K	Absent	mg/L	0.05	No relaxation
24	Lead (as Pb)	IS: 3025 (P-47)	<0.005 *	mg/L	0.01	No relaxation
25	Zinc (as Zn)	IS: 3025 (P-49)	<0.05	mg/L	5.0	15.0
26	Barium (as Ba)	EKO/CHEM/SOP-ICPMS / W-01	<0.01	mg/L	0.7	No relaxation
27	Mineral Oil	IS:3025 (P-39)	Absent	mg/L	0.5	No relaxation
28	Ammonia (as Total Ammonia-N)	IS: 3025 (P-34)	<0.1	mg/L	0.5	No relaxation
29	Silver (as Ag)	IS: 3025 (P-24)	<0.005	mg/L	0.1	No relaxation
30	Total Chromium (as Cr)	IS: 3025 (P-52)	<0.005	mg/L	0.05	No relaxation
31	Total Alkalinity (as CaCo3)	IS: 3025 (P-23)	184.0	mg/L	200.0	600.0
32	Aluminium (as Al)	IS: 3025 (P-55)	<0.005	mg/L	0.03	0.2
33	Boron (as B)	IS: 3025 (P-57)	<0.25	mg/L	0.5	1.0
34	Cadmium (as Cd)	IS: 3025 (P-41)	<0.001	mg/L	0.003	No relaxation
35	Anionic Detergents (as MBAS)	IS: 13428: 2005	<0.05	mg/L	0.2	1.0
36	Sulphide (as H2S)	IS 3025 (Part 29)	<0.05	mg/L	0.05	No relaxation
37	Molybdenum (as Mo)	EKO/CHEM/SOP-ICPMS /W-01	<0.005	mg/L	0.07	No relaxation
38	Nickel (as Ni)	IS: 3025 (P-54)	<0.005	mg/L	0.02	No relaxation
39	Polychlorinated biphenyls (PCB)	EKO/CHEM/SOP-GCMSMS/ W-02	ND (LOQ-0.01)	mg/L	0.0005	No relaxation
40	Polycyclic aromatic hydrocarbons (PAH)	- EKO/CHEM/SOP-GCMSMS/ W-02	ND (LOQ-0.01)	mg/L	0.0001	No relaxation
41	Alachior	EKO/CHEM/SOP-GCMSMS/ W-01	ND (LOQ-0.01)	µg/l	20.0	No relaxation
42	Atrazine	EKO/CHEM/SOP-GCMSMS/ W-01	ND (LOQ-0.01)	µg/l	2.0	No relaxation

For EKO PRO ENO



Environmental Consultants and Analytical Laboratory
(An ISO 9001:2015 Certified Company)

Office & Laboratory : 32/41. South Side of G. T. Road. UPSIDC Industrial Area, Ghazinbaid - 201 009 (Defhi-NCR) INDIA. Contact No.: 9711159210, 9711159427, SMSWhatsapp No.: 9711163422. E-mail: email@exopro.in, ekoproengineers@gmail.com, website: www.ekopro.in

For Any Query Contact Group : A-9711159337

ULR: TC506319000002631P

Test Report No. :

EK0/EV-WA/027/010419

Issue Date

06/04/2019

.No.	PARAMETER	Test Methods	Results	Units	IS: 10500-2012	(Limits)*
					Acceptable	Permissible
43	Aldrin/Dieldrin	EKO/CHEM/SOP-GCMSMS/ W-01	ND (LOQ-0.01)	үд/1	0.03	No relaxation
44	Alpha HCH	EKO/CHEM/SOP-GCMSMS/ W-01	ND (LOQ-0.01)	μg/Ι	0.01	No relaxation
45	Beta HCH	EKO/CHEM/SOP-GCMSMS/ W-01	ND (LOQ-0.01)	µg/l	0.04	No relaxation
46	Butachlor	EKO/CHEM/SOP-GCMSMS/ W-01	ND (LOQ-0.01)	µg/l	125.0	No relaxation
47	Chlorpyriphos	EKO/CHEM/SOP-GCMSMS/ W-01	ND (LOQ-0.01)	µg/l	30.0	No relaxation
48	Delta HCH	EKO/CHEM/SOP-GCMSMS/ W-01	ND (LOQ-0.01)	μg/l	0.04	No relaxation
49	DDT(o,p and p,p-Isomers of DDT, DDE and DDD	EKO/CHEM/SOP-GCMSMS/ W-01	ND (LOQ-0.01)	µg/l	1.0	No relaxation
50	Endosulfan (Alpha,Beta & Sulphate)	EKO/CHEM/SOP-GCMSMS/ W-01	ND (LOQ-0.01)	рдЛ	0.4	No relaxation
51	Ethion	EKO/CHEM/SOP-GCMSMS/ W-01	ND (LOQ-0.01)	µg/l	3.0	No relaxation
52	Gamma-HCH (Lindane)	EKO/CHEM/SOP-GCMSMS/ W-01	ND (LOQ-0.01)	µg/I	2.0	No relaxation
53	Malathion	EKO/CHEM/SOP-GCMSMS/ W-01	ND (LOQ-0.01)	hg/l	190.0	No relaxation
54	Methyl parathion	EKO/CHEM/SOP-GCMSMS/ W-01	ND (LOQ-0.01)	µg/l	0.3	No relaxation
55	2,4 Dichlorophenoxyacetic acid	EKO/CHEM/SOP-LCMS-MS/ W-01	ND (LOQ-0.01)	Гец	30.0	No relaxation
56	Isoproturon	EKO/CHEM/SOP-LCMS-MS/ W-01	ND (LOQ-0.01)	ур/1	9.0	No relaxation
57	Monocrotophos	EKO/CHEM/SOP-LCMS/ 01	ND (LOQ-0.01)	уд/І	1.0	No relaxation
58	Phorate	EKO/CHEM/SOP-LCMS/ 01	ND (LOQ-0.01)	l/gu	2.0	No relaxation
59	Bromoform	APHA 6232	<0.05	mg/L	0.1	No relaxation
60	Dibromochloromethane	APHA 6232	<0.05	mg/L	0.1	No relaxation
61	Bromodichloromethane	APHA 6232	<0.05	mg/L	0.06	No relaxation
62	Chloroform	APHA 6232	<0.05	mg/L	0.2	No relaxation
63	Total Coliform	IS: 1622: 1981	Absent	MPN/100mL	Shall not be detectable in	CINERS OF

For EKO PRO ENO



Environmental Consultants and Analytical Laboratory (An ISO 9001:2015 Certified Company)

Office & Laboratory: 32:41. South Side of G. T. Road, UPSIDC Industrial Area, Ghaziabad - 201 009 (Delhi-NCR) INDIA. Confact No.: 9711159210, 9711159270, 9711159427, SMSWhatsapp No.: 9711153422; E-mail: amail@ekopro.in.ekoproengineers@gmel.com, website: www.ekopro.in.

For Any Query Contact Group : A-9711159337

ULR: TC506319000002631P

Test Report No. :

EK0/EV-WA/027/010419

Issue Date

06/04/2019

S.No.	PARAMETER	Test Methods	Results	Units	IS: 10500-201	12 (Limits)*
					Acceptable	Permissible
63		and the second			any 100 ml	
64	E.coli .	IS: 1622: 1981	Absent	Per 100 mL	Shall not be detectable in any 100 ml sample	

<sup>\*</sup> For details pl see IS: 10500-2012.

Notes:

\*\*End of Report\*\*

- The results given above are ralated to the tested sample, as received & mentioned parameters.
   The customer asked for the above tests only.
- 2. This test report will not be generated again, either wholly or in part, without written permission of the Laboratory.
- 3. This test report will not be use for any publicity/legal purpose.
- 4. This test samples will be disposed off after two weeks from the date of issue of test report, unless until specified by the customer. Sample received for biological tests will be destroyed after 7 days from the date of issue of test report.
- 5. Responsibility of the Laboratory is limited to the invoiced amount only.

For EKO PRO ENGINEERS PUT LTD GIAZURGAD

Authorized Signatory

Contact: +91 - 9810243870



### EKO PRO ENGINEERS PVT. LTD.

**Environmental Consultants and Analytical Laboratory** (An ISO 9001:2015 Certified Company)

1 .

Office & Laboratory 32/41, South Side of G. T. Road, UPSIDC Industrial Area, Ghaziabad - 201 009 (Delhi-NCR) INDIA. Cortact No.: 9711159210, 9711159427, SMSWhatsapp No.: 9711163422; E-mail: email@ekopro.in. ekoprosing/neers/Sigmail.com, website: www.ekopro.in

> For Any Query Contact Group: A-9711159337

Issue Date

06/04/2019

### **TEST REPORT**

### Noise Monitoring

Test Report No. : Issued To

EK0/EV-NM/111/010419

HINDUSTAN ZINC LIMITED

PLOT NO. - 2

SECTOR - 14, IIE, SIDCUL PANTNAGAR, RUDRAPUR

(UTTRAKHAND)

Sample Description

Ambient Noise

Sample Drawn on

29/03/2019

Sample Drawn by

EPEPL(Mr. Sudesh Dubey)

Sample Received on

01/04/2019

Sampling Location

Back Side Of DG Area

Sampling Plan & Procedure

SOP-N/01

**Environmental Condition** 

Normal

Analysis Duration Remark (if any)

01/04/2019 To 05/04/2019

R		

S.No. PARAM	ETER	Test Methods	Results	Units	LIMITS AS PER EPA *
1 Leq (Day T	ime)	Eko/Chem/SOP/S/N-01	70.6	dB (A)	75.0
2 Leq (Night	Time)	Eko/Chem/SOP/S/N-01	65.2	dB (A)	70.0

<sup>\*</sup> Details as per EPA -1986 Ambient Noise Quality Standards, Schedule-III, (Rule-3)

### Notes:

"\*End of Report"

- The results given above are ralated to the tested sample, as received & mentioned parameters. The customer asked for the above tests only.
- This test report will not be generated again, either wholly or in part, without written permission of the Laboratory.
- This test report will not be use for any publicity/legal purpose.
- Responsibility of the Laboratory is limited to the invoiced amount only.

For EKO PRO ENGINEE

Contact: +91 - 9810243870

06/04/2019

### EKO PRO ENGINEERS PVT. LTD.

**Environmental Consultants and Analytical Laboratory** (An ISO 9001:2015 Certified Company)

Office & Laboratory : 32/41, South Side of G. T. Road, UPSIDC Industrial Area, Ghaziabad - 201 009 (Dehi-NCR) INDIA Contact No.: 9711159210, 9711159427, SMS/Whatsapp No.: 9711163422; E-mail: email@ekopro.in, ekoproengineers@gmail.com, website: www.ekopro.in

> For Any Query Contact Group: A-9711159337

Issue Date

### **TEST REPORT**

Noise Monitoring

Test Report No. : Issued To

EK0/EV-NM/112/010419

HINDUSTAN ZINC LIMITED

PLOT NO. - 2

SECTOR - 14, IIE, SIDCUL PANTNAGAR, RUDRAPUR

(UTTRAKHAND) Ambient Noise

Sample Description

Sample Drawn on

Sample Drawn by

EPEPL(Mr. Sudesh Dubey)

Sample Received on

01/04/2019

29/03/2019

Sampling Location

Near Compressor Area

Sampling Plan & Procedure

SOP-N/01

**Environmental Condition** 

Normal 01/04/2019 To 03/04/2019

Analysis Duration Remark (if any)

NA

S.No.	PARAMETER	Test Methods	Results	Units	LIMITS AS PER EPA *
1	Leq (Day Time)	Eko/Chem/SOP/S/N-01	72.1	dB (A)	75.0
2	Leq (Night Time)	Eko/Chem/SOP/S/N-01	67.6	dB (A)	70.0

Details as per EPA -1986 Ambient Noise Quality Standards, Schedule-III, (Rule-3)

### Notes:

"End of Report"

- The results given above are ralated to the tested sample, as received & mentioned parameters. The customer asked for the above tests only.
- 2. This test report will not be generated again, either wholly or in part, without written permission of the Laboratory.
- This test report will not be use for any publicity/legal purpose.
- 4. Responsibility of the Laboratory is limited to the invoiced amount only.

For EKO PRO ENGINE Authorized Signatory



Issued To

### EKO PRO ENGINEERS PVT. LTD.

Environmental Consultants and Analytical Laboratory (An ISO 9001:2015 Certified Company)

3 %

Office & Laboratory: 32/41, South Side of G. T. Road, UPSIDC Industrial Area, Ghaziabad - 201 009 (Delhi-NCR) INDIA. Contact No. 9711159210, 9711159427, SMS-Whatsapp No. 9711159422, E-mail: email@ekopro.in ekoproengivens@gmail.com, website: www.ekopro.in

For Any Query Contact Group : A-9711159337

Issue Date

06/04/2019

### **TEST REPORT**

**Noise Monitoring** 

Test Report No. : EK0/EV-NM/110/010419

HINDUSTAN ZINC LIMITED

PLOT NO. - 2

SECTOR - 14, IIE, SIDCUL PANTNAGAR, RUDRAPUR

(UTTRAKHAND)

Sample Description Ambient Noise

Sample Drawn on 28/03/2019
Sample Drawn by EPEPL(Mr. Sudesh Dubey)

Sample Received on 01/04/2019
Sampling Location Near Main Gate

Sampling Location Near Main Gate
Sampling Plan & Procedure SOP-N/01
Environmental Condition Normal

Analysis Duration 01/04/2019 To 03/04/2019

Remark (if any)

RESULTS

	KESULIS			
S.No. PARAMETER	Test Methods	Results	Units	LIMITS AS PER EPA *
Leq (Day Time)	Eko/Chem/SOP/S/N-01	62.8	dB (A)	75.0
Leq (Night Time)	Eko/Chem/SOP/S/N-01	47.4	dB (A)	70.0

<sup>\*</sup> Details as per EPA -1986 Ambient Noise Quality Standards, Schedule-III, (Rule-3)

The results given above are ralated to the tested sample, as received & mentioned parameters.
The customer asked for the above tests only.

2. This test report will not be generated again, either wholly or in part, without written permission of the Laboratory.

3. This test report will not be use for any publicity/legal purpose.

4. Responsibility of the Laboratory is limited to the invoiced amount only.

\*\*End of Report\*\*





Environmental Consultants and Analytical Laboratory (An ISO 9001:2015 Certified Company)

Office & Laboratory: 32/41, South Side of G. T. Road, UPSIDC Industrial Area, Ghaziabad - 201 009 (Delhi-NCR) INDIA. Contact No.: 9711155210, 9711159427, SMS-Whatsapp No.: 9711153422, E-mail: small@ekopro.in; ekoprosing/reens@gmail.com, website: www.ekopro.in

For Any Query Contact Group : A-9711159337

Issue Date

06/04/2019

### TEST REPORT

Noise Monitoring

Test Report No. : Issued To EK0/EV-NM/109/010419

HINDUSTAN ZINC LIMITED

PLOT NO. - 2

SECTOR - 14, IIE, SIDCUL PANTNAGAR, RUDRAPUR

(UTTRAKHAND)

Sample Description

Ambient Noise

Sample Drawn on

28/03/2019

Sample Drawn by

EPEPL(Mr. Sudesh Dubey)

Sample Received on

01/04/2019

Sampling Location

East Side Of Canteen in New Plant

Sampling Plan & Procedure

SOP-N/01

**Environmental Condition** 

Normal

Analysis Duration

01/04/2019 To 03/04/2019

Remark (if any)

NA

	RESULIS								
S.No	. PARAMETER	Test Methods	Results	Units	LIMITS AS PER EPA *				
1	Leq (Day Time)	Eko/Chem/SOP/S/N-01	62.4	dB (A)	75.0				
2	Leq (Night Time)	Eko/Chem/SOP/S/N-01	52.6	dB (A)	70.0				

DECLII TO

Notes:

\*\*End of Report\*\*

- The results given above are ralated to the tested sample, as received & mentioned parameters.
   The customer asked for the above tests only.
- 2. This test report will not be generated again, either wholly or in part, without written permission of the Laboratory.
- 3. This test report will not be use for any publicity/legal purpose.
- 4. Responsibility of the Laboratory is limited to the invoiced amount only.



<sup>\*</sup> Details as per EPA -1986 Ambient Noise Quality Standards, Schedule-III, (Rule-3)



Test Report No. : Issued To

### EKO PRO ENGINEERS PVT. LTD.

Environmental Consultants and Analytical Laboratory
(An ISO 9001:2015 Cartified Company)

Office & Laboratory : 32/41, South Side of G. T. Road, UPSIDC Industrial Area, Ghaziabad - 201 009 (Delhi-NCR) INDIA. Cortact No.: 9711159210, 9711159427, SMS/Whatsapp No.: 9711153422, E-mail: email@enopro.in.ekoprosingers@gmail.com, website: www.ehopro.in.

For Any Query Contact Group : A-9711159337

Issue Date

06/04/2019

### **TEST REPORT**

Noise Monitoring

EK0/EV-NM/114/010419

HINDUSTAN ZINC LIMITED

PLOT NO. - 2

SECTOR - 14, IIE, SIDCUL

PANTNAGAR, RUDRAPUR

(UTTRAKHAND)

Sample Description Workzone Noise

Sample Drawn on 29/03/2019

Sample Drawn by EPEPL(Mr. Sudesh Dubey)

Sample Received on 01/04/2019
Sampling Location Lead M&C Plant

Sampling Plan & Procedure SOP-N/01
Environmental Condition Normal

Analysis Duration 01/04/2019 To 03/04/2019

Remark (if any)

RESULTS

C N-	PARAMETER	Test Methods	Results	Units	LIMITS AS PER
S.No. PA	ARAMETER				EPA *
1	Leq (Day Time)	Eko/Chem/SOP/S/N-01	71,3	dB (A)	75.0
2	Leq (Night Time)	Eko/Chem/SOP/S/N-01	65.1	dB (A)	70.0

<sup>\*</sup> Details as per EPA -1986 Ambient Noise Quality Standards, Schedule-III, (Rule-3)

### Notes:

"End of Report"

- The results given above are ralated to the tested sample, as received & mentioned parameters.
   The customer asked for the above tests only.
- 2. This test report will not be generated again, either wholly or in part, without written permission of the Laboratory.
- 3. This test report will not be use for any publicity/legal purpose.
- 4. Responsibility of the Laboratory is limited to the invoiced amount only.

For EKO PRO ENGINEERS PYTATIONS AND Authorized Signatory

06/04/2019

### EKO PRO ENGINEERS PVT. LTD.

**Environmental Consultants and Analytical Laboratory** (An ISO 9001:2015 Certified Company)

Office & Laboratory : 32/41, South Slide of G. T. Road, UPSIDC Industrial Area, Ghaziabad - 201 009 (Delhi-NCR) INDIA Contact No.: 9711159210, 9711159427, SMSWhatsapp No.: 9711153422; E-mail: email@ekopro.in.ekoproengineers@gmail.com, website: www.ekopro.in

> For Any Query Contact Group: A-9711159337

Issue Date

### **TEST REPORT**

Noise Monitoring

Test Report No. : Issued To

EK0/EV-NM/113/010419

HINDUSTAN ZINC LIMITED

PLOT NO. - 2

SECTOR - 14, IIE, SIDCUL PANTNAGAR, RUDRAPUR

(UTTRAKHAND)

Sample Description

Workzone Noise

Sample Drawn on

29/03/2019

Sample Drawn by

EPEPL(Mr. Sudesh Dubey)

Sample Received on

01/04/2019

Sampling Location

Zinc M&C Plant

Sampling Plan & Procedure

SOP-N/01

**Environmental Condition** 

Normal

Analysis Duration Remark (if any)

01/04/2019 To 03/04/2019 NA

S.No. PARAMETER	Test Methods	Results	Units	LIMITS AS PER EPA *
Leq (Day Time)	Eko/Chem/SOP/S/N-01	70.8	dB (A)	75.0
Leq (Night Time)	Eko/Chem/SOP/S/N-01	66.2	dB (A)	70.0

DECLU TO

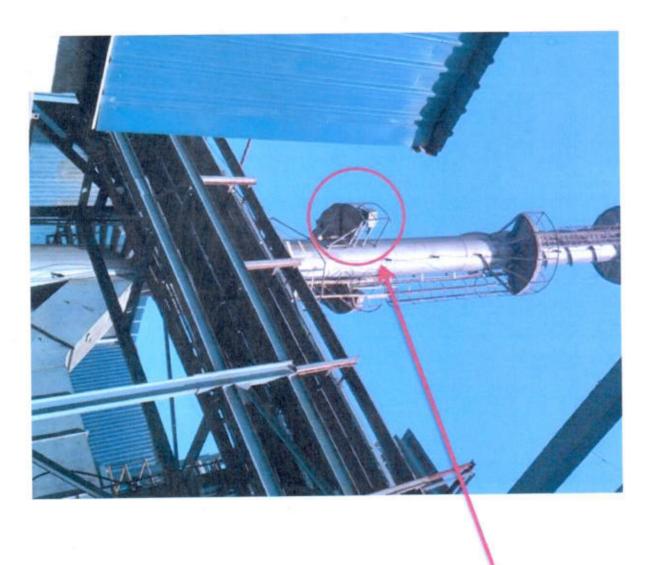
### Notes:

\*\*End of Report\*\*

- The results given above are ralated to the tested sample, as received & mentioned parameters. The customer asked for the above tests only.
- 2. This test report will not be generated again, either wholly or in part, without written permission of the Laboratory.
- This test report will not be use for any publicity/legal purpose.
- 4. Responsibility of the Laboratory is limited to the invoiced amount only.

For EKO PRO ENGINE Authorized Signatory

Details as per EPA -1986 Ambient Noise Quality Standards, Schedule-III, (Rule-3)



PM analyzer





# Rain water Storage Ponds







PMP/F&S/2018-19/02

Date: 16.01.2019

Dy. Chief Inspector (Factories & Boilers), Shram Bhawan, Haldwani Distt. Nainital(U.K)

Sub: Onsite Emergency Plan for Hindustan Zinc Limited, Pantnagar Metal Plant.

Dear sir.

Please find attached herewith Onsite Emergency Plan for Hindustan Zinc Limited, Pantnagar Metal Plant.

Thanking you,

Yours faithfully,

(Lalan Deo) Factory Manager

Encl: As above.

क्ष्मार्गात्वय क्ष्मार्गात्वय क्ष्मार्थाः।। क्ष्मायल्यः, उत्तराखण्ड

Hindustan Zinc Limited
Pantnagar Metal Plant
Plot No. 2 & 3, Sector 14, IIE, SIDCUL Pantnagar

★: 05944-257300, www.hzlindia.com

Regd. Office: Yashad Bhawan, Udaipur [Rajasthan] - 313 004 CIN : L27204RJ1966PLC001208

# **Greenbelt Development**





# Pantnagar CSR- News Paper Clippings



Chief Minister inaugurating Nandghar, sanitrary napkin unit along with Group Head – **CSR and Rudrapur City Mayor** 

# सखी प्रशिक्षण केंद्र का उद्घाटन

काउंडेशन रुद्रपुर की और की गई। बृहस्पतिवार की प्रशिक्षण केंद्र की स्थापना बनाने के लिए सखी से कालीनगर कस्ब म स्वयं सहायता समुहं मंजरी एडीएम जगदीश कोडपाल महिलाओं को आत्मनिभर लिमटेड के सहयोग से दनशपुर। हिंदुस्तान जिंक ने केंद्र का उदघाटन किया।



फाउंडेशन के खैरुन्निया ने बताया कि संस्था की और से अब तक तीन दोधरी नीरज गीतम यतेंद्र सिंह जोगेंद्र धामी आदि थे। ब्यरी का प्रशिक्षण दिया जाएगा। वहां सी चंद्रा गोपी कुमार, पी शैलजा, श्याम जोड़ा गया है। इस केंद्र में महिलाओं को स्वरोजगार और आत्मनिर्भर बजाने ग्राम सभाओं के छह गांवों में 34 समूह का गठन कर 421 महिलाओं को

# एडीएम ने शुरू किया सखी प्रशिक्षण केन्द्र



प्रताप शाह ने किया। समारोह में मुख्य अतिथि की हैसियत से बोलते हुये एडीएम ने कहा कि महिलाओं गया है। केन्द्र का उद्घाटान एडीएम प्रशिक्षण केन्द्र को शुरु कर दिया रुद्रपुर। हिन्दुस्तान जिंक के सहयोग मंजरी HISTORPH कसखा

बनाने पर काम करें तो समाज व को स्वालबी बनाया जाये। इस तर के केन्द्र महिलाओं के स्वालब सिंह, जोगेन्द्र धामी, आदि थे। खेरुलनिशा, नीरज चन्द्रा,अ.पी.शैलजा, बहतर श्याम वैधरी 111113

## कंद्र का उद्घाटन एसडीएम ने किया

### merem

Saleste sout elorecien

REGARDS FROM PRINCES the ribbe freez for the months to making in billion spylotelites transfer many the belly 300 4.4 afferon say the notation and अस्ताविककारी ने कित्या। इसमे á material . Upotte. F 2000 5

IN BESTER AND MARKET STREET, पुरुक्तर की कालीनगर में A Party

> क्षित्र के द्रम्तीय बद्रम्ताका काहा CHARL SAME AND I 1 पण हैं। साथ की हर गरेब में II MALIE STREET STATE IN THE P. L. LAST. 1年中 का जिल्ला कारता आगाज की राजनी के प्रतिकार के इ. के व्यक्तिकार औ NAME AND BOSON & LOSSING DAY 5 PRINTED HIM PART CA I Spirited DOLF SEC. F. A POTO PERSONAL PRINCIPLE DIFT SHAME SAUGH PRINCIPLE BY BY इस्त धीचे 21.88.1 W. Alle

## हिंदुस्तान जिंक के सहयोग से खुला सखी प्रशिक्षण केंद्र



Sant's annual Phila

प्रस्त जाति स राम्ह बनावन्द 421 महित्नाओं को जोड़ा COLD STREET

# CSR —Pantnagar (International Women's Day Celebration)



# बराबरा का आहान



### मजदूर महिला दिवस इंकलाबी मजदूर केंद्र ने मनाया

### कालीनगर की महिलाए प्रथम दिनेशपुर में जलेबी प्रतियोगिता में



दिनेशपुर के कार्यनगर में सांस्कृतिक कार्यक्रम प्रस्तुत करते स्कृती बच्चे »

## रेली निकाल किया जागरूक

संवाद सूत्र, दिलेशपुर की गर्ड । रामान में विक्रोब के

## CSR - Pantnagar





Shiksha Sambhal Programme



Medical camp



Sponsoring for IIT coaching

Medical camp

## CSR - Pantnagar



Shiksha Sambhal Programme



Medical camp



Sponsoring for IIT coaching



Medical camp

HINDUSTAN ZINC

## CSR - Pantnagar



ADM inaugurating Tailoring training centre at PMP under Sakhi project



ADM inaugurating Computer training centre at PMP under Sakhi project



ADM addressing the gathering at inauguration programme at PMP under sakhi project



Participants for inauguration function at PMP under sakhi project

# Hazardous waste storage

waste yard



## Data display board

